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No claims have been added, amended or canceled. Accordingly, this listing of claims is provided merely for the convenience of the Examiner:

Listing of Claims:

1. (Previously Presented) A system for modeling a bi-directional signal of an electric circuit, comprising:

means for maintaining a first value representing an input component of the bidirectional signal;

means for maintaining a second value representing an output component of the bidirectional signal; and

means for generating a third value based upon at least the first value and second value.

- 2. (Previously Presented) The system of Claim 1 wherein the means for generating a third value is further based upon resistive data.
- 3. (Previously Presented) The system of Claim 1 wherein the first value, second value and third value are output to a computer file.
 - 4–7. (Canceled)
- 8. (Previously Presented) A method for modeling a bi-directional signal of an electric circuit, comprising:

maintaining a first value representing an input component of the bi-directional signal; maintaining a second value representing an output component of the bi-directional signal; and

generating a third value based upon at least the first value and second value.

9. (Previously Presented) The method of Claim 8 wherein the third value is further based upon resistive data which models at least a portion of resistance coupled to a pad cell.

10. (Previously Presented) The method of Claim 8 further comprising: specifying at least one bi-directional signal of a logic design to be simulated; and simulating the logic design.

11-12. (Canceled)

13. (Previously Presented) A method for generating a simulation output file, comprising:

placing first data in the simulation file which represents when an input signal applied to a bi-directional pad is de-asserted; and

placing second data in the simulation file which represents when an output signal applied to the bi-directional pad is asserted.

- 14. (Previously Presented) The method of Claim 13 further comprising:
 placing third data in the simulation file which represents when a resolved signal is
 asserted, the resolved signal being a combination of the input signal applied to the bi-directional
 pad, the output signal applied to the bi-directional pad, and a resistance value associated with the
 bi-directional pad.
- 15. (Previously Presented) A simulation model for a bi-directional pad, said simulation model being responsive to an applied stimulus and generating responses thereto, and having at least two modes of operation, where a first mode of operation provides at least two response values for the bi-directional pad, and a second mode of operation provides at least three response values for the bi-directional pad.
- 16. (Previously Presented) A method for operating an improved pad cell model, comprising:

maintaining a first value representing an input component of the bi-directional signal; maintaining a second value representing an output component of the bi-directional signal; and

generating a third value based upon at least the first value and second value.

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17. (Previously Presented) The method of claim 16, wherein the improved pad cell model comprises:

an input node having a value which reflects data that is supplied to the pad cell from external sources;

an output node having a value which reflects data that is supplied as output from the pad cell; and

a resolved node, coupled to the input node and output node, having a value which reflects a combination of the input node value and the output node value.